Claims

1. A subscriber end digital communication management unit for managing communications with remote subscribers, the device comprising:

an internal interface for interfacing with at least one subscriber electronic device,

an IP address manager for formulating a request for an IP address corresponding to a user defined remote subscriber, submitting said request to an external location and recording a response thereto, and

a packet addresser, associated with said IP address manager, for addressing data packets to said user defined remote subscriber using an IP address taken from said recorded response, thereby to set up a peer to peer connection with said user defined remote subscriber.

2. The unit of claim 1, operable to store a defined access name or number for unique identification.

3. The unit of claim 1, wherein said internal interface is a LAN interface .

4. The unit of claim 1, wherein said subscriber electronic devices are any one of a group comprising: a magnetic card reader, a smart card reader,

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a video camera, a television, a Wireless device, a bluetooth device, a

telephone, a fax machine, a cellular telephone, a personal digital assistant, a

security sensor, a meter, an electronic utility,a portable computer and a desktop

computer.

5.   The unit of claim 1, wherein said at least one communication

network is any one of the PSTN, the Internet, a cellular network, a radio

network, and an optical fiber network.

6.   The unit of claim 1, wherein said at least one communication

network is the Internet and any one of the PSTN, a cellular network, a radio

network, and an optical fiber network.

7.   The unit of claim 1, wherein said packet addresser comprises

TCP/IP functionality.

8.   The unit of claim 1, further comprising a backup power supply.

9.   The unit of claim 1, further comprising a secure communication

unit comprising cryptographic and firewall functionality.

10.   The unit of claim 9, wherein said cryptographic functionality comprises at least one of encryption of communications, decryption of communications and verification of communications.

11. The unit of claim 1 being located within software on a PC platform.

12.   The unit of claim 1, being embedded within a device.

13. The unit of claim 1, further comprising an accumulated transaction log for billing data, said transaction log being transferable to the subscriber or to a billing center.

14.   The unit of claim 1, wherein said request is further operable to determine whether said user defined remote subscriber has a similar device.

15.   The unit of claim 1, comprising master functionality to perform in a master server mode to other units.

16. The unit of claim 1, comprising slave functionality to perform in a slave mode to other units.

17. Internet connection management unit for supporting end to end Internet connections between subscribers, said unit comprising:

a database for storing user identification names of said subscribers in a first field and respective assigned user IP addresses in a second field,

a database manager for determining assigned user IP addresses of ones of said subscribers currently connected and dynamically updating said second field therewith, and

a request manager for receiving external requests specifying at least one user identification request, interrogating said database and responding with respective IP addresses.

18. The unit of claim 17, being operable to connect to said subscribers via wireless data links.

19. The unit of claim 17, further comprising a security layer.

20. The unit of claim 19, wherein said security layer comprises a firewall.

21. The unit of claim 19, wherein said security layer comprises connection authentication functionality.

22. The unit of claim 19, wherein said security layer comprises encryption functionality.

23. The unit of claim 19, further comprising connection monitoring functionality for monitoring said subscriber end to end connection.

24. The unit of claim 23, said functionality for monitoring being associated with functionality for providing billing records.

25. The unit of claim 17, further comprising pushing functionality for sending data to a group or to all of said subscribers.

26. A system for peer to peer communication between subscribers, the system comprising:

a)   a subscriber end digital communication management device for managing communications with remote subscribers, the device comprising:

an internal interface for interfacing with at least one subscriber electronic device,

an IP address manager for formulating a request for an IP address corresponding to a user defined remote subscriber, submitting said request and recording a response thereto, and

a packet addresser, associated with said IP address manager, for addressing data packets to said user defined remote subscriber using an IP address taken from said recorded response, and

b)   an Internet connection management device for receiving and processing said request, said device comprising:

a database for storing user identification names of said subscribers in a first field and respective assigned user IP addresses in a second field,

a database manager for determining assigned user IP addresses of ones of said subscribers currently connected and dynamically updating said second field therewith, and

a request manager for receiving external requests specifying at least one user identification request, interrogating said database and responding with respective IP addresses,

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thereby to provide peer to peer connections between said subscribers.

27. The system of claim 26, further comprising c) a billing mechanism for accumulating a transaction log at the subscriber end and retrieving data of said log to the master server.

28. A method of providing end to end communication over a TCP/IP based network, the method comprising:

selecting a remote subscriber to establish said communication with,

obtaining user address data for said remote subscriber,

sending to a remote database said user name to obtain an IP address corresponding to said user address data of said remote subscriber, and

if said IP address is obtained then establishing an end-to-end connection with said remote subscriber using said obtained IP address to address data packets of said communication.

29. The method of claim 28, further comprising accumulating end to end transaction data for billing.